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Jiang et al.

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(54) **BIOMIMETIC POLYMER FOR STABILIZING WELLBORE AND METHOD FOR PREPARATION OF THE SAME AND DRILLING FLUID**

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C08L 51/02 (2006.01)
C08F 251/00 (2006.01)
C08F 8/32 (2006.01)

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(58) **Field of Classification Search**

None

See application file for complete search history.

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(57) **ABSTRACT**

The present invention provides a biomimetic polymer for stabilizing wellbore, a method for preparation of the biomimetic polymer, and a drilling fluid. The polymer contains carboxymethyl chitosan that serves as a backbone and dopamine-derived groups grafted on the backbone. The polymer provided in the present invention can improve the strength of shale in the wellbore, seal the shale pores and reduce the filter loss of drilling fluid, and thereby attains an effect of stabilizing the wellbore in shale formation in drilling process.

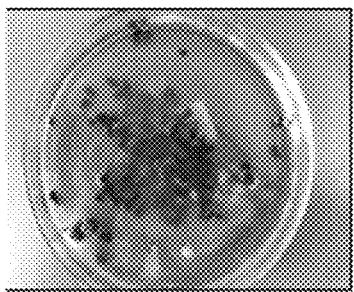
3 Claims, 2 Drawing Sheets



Initial



1h



3h